

## **AMENDMENTS TO THE CLAIMS:**

This listing of claims will replace all prior versions and listings of claims in the application:

### **CLAIMS**

1. (Original) A foam comprising a liquid phase and a gas phase wherein
  - the liquid phase comprises at least one sclerosing agent and is at least 20% vol/vol of at least one viscosity enhancing agent; and
  - the gas phase comprises at least 50% CO<sub>2</sub>;
  - and wherein the foam has a density less than 0.25 g/ml and half life of greater than 100 secs.
2. Cancelled.
3. Cancelled.
4. A foam of claim 1, wherein the gas phase comprises at least 99% CO<sub>2</sub>.
5. A foam of claim 1, wherein the gas phase consists essentially of CO<sub>2</sub>.
6. Cancelled.
7. Cancelled.
8. A foam of claim 1, wherein the half life is at least 180 seconds.
9. A foam of claim 1, wherein the density ranges from 0.07 to 0.22 g/ml.
10. Cancelled.
11. Cancelled.
12. A foam of claim 1, wherein the density ranges from 0.08 to 0.14 g/ml.
13. A foam of claim 1, wherein the gas phase further comprises another physiologically acceptable gas that is dispersible in blood.
14. A foam of claim 1, wherein the gas phase further comprises O<sub>2</sub>.
15. A foam of claim 1, wherein the gas phase consists essentially of CO<sub>2</sub> and O<sub>2</sub>.

16. A foam of claim 1, wherein the at least one viscosity enhancing agent is chosen from glycerol and PVP.

17. Cancelled.

18. A foam of claim 1, wherein the at least one sclerosing agent is chosen from polidocanol, glycerol and sodium tetradecyl sulphate.

19. A foam of claim 1, wherein the at least one sclerosing agent is polidocanol.

20. A foam of claim 1, wherein the polidocanol is present in a concentration ranging from 0.5 to 4% vol/vol in the liquid phase.

21. A foam of claim 1, wherein the liquid phase further comprises water and/or saline solution.

22. A foam of claim 1, wherein the liquid phase further comprises alcohol.

23. A foam of claim 1, wherein the saline solution is phosphate buffered saline with a pH ranging from 6.0 to 8.0.

24. A foam of claim 1, wherein the foam is capable of being passed down a 21 gauge needle such that 50% or more by number of its gas bubbles of at least 25 $\mu$ m remain at 150 $\mu$ m diameter or less and at least 95% of these bubbles at 280 $\mu$ m diameter or less.

25. A foam of claim 1, wherein at least 50% by number of the gas bubbles of at least 25 $\mu$ m diameter are of no more than 120 $\mu$ m diameter and at least 95% of these gas bubbles are of no more than 250 $\mu$ m.

26. A method for angiologic treatment comprising injecting a foam of claim 1 into vessels to be treated.

27. A method for phlebologic treatment comprising injecting a foam of claim 1 into vessels to be treated.

28. The method of claim 25 wherein substantially the entire greater saphenous vein of one leg of a human patient is treated by a single injection of foam.

29. The method of claim 27 wherein the single injection uses an amount ranging from 10ml to 50ml of foam.

30. Cancelled.

31. The method of claim 27 wherein the single injection uses an amount ranging from 15ml and 30ml.

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64. A method for producing a foam comprising  
passing a mixture comprising at least one physiologically acceptable blood  
dispersible gas and at least one aqueous sclerosant liquid through one or more  
passages having at least one cross-sectional dimension of from 0.1 to 15  $\mu\text{m}$ ,  
the ratio of gas to liquid being controlled such that the foam is produced  
having a density less than 0.25 g/cm and a half-life of greater than 100 secs.

65. The method of claim 64, wherein the physiologically acceptable blood  
dispersible gas is chosen from CO<sub>2</sub>, O<sub>2</sub> and mixtures thereof.

66. The method of claim 64, wherein the physiologically acceptable blood  
dispersible gas is at least 50% CO<sub>2</sub>.

67. Cancelled.

68. Cancelled.

69. The method of claim 64, wherein the physiologically acceptable blood  
dispersible gas comprises at least 99% CO<sub>2</sub>.

70. The method of claim 64, wherein the physiologically acceptable blood  
dispersible gas consists essentially of CO<sub>2</sub>.

71. The method of claim 64, wherein the half life is at least 120 seconds
72. Cancelled.
73. The method of claim 64, wherein the half life is at least 180 seconds.
74. The method of claim 64, wherein the density ranges from 0.07 to 0.19 g/ml.
75. The method of claim 64, wherein the mixture further comprises at least 20% vol/vol of at least one viscosity enhancing agent.
76. The method of claim 75, wherein the at least one viscosity enhancing agent is chosen from glycerol and PVP.
77. Cancelled.
78. The method of claim 64, wherein the at least one sclerosing agent is chosen from polidocanol, glycerol and sodium tetradecyl sulphate.
79. The method of claim 78, wherein the at least one sclerosing agent is polidocanol.
80. The method of claim 64, wherein the foam has a viscosity ranging from 2.0 to 3.5 cP.
81. The method of claim 64, wherein the foam is capable of being passed down a 21 gauge needle such that 50% or more by number of its gas bubbles of at least 25 $\mu$ m remain at 150 $\mu$ m diameter or less and at least 95% of these bubbles at 280 $\mu$ m diameter or less.

82. The method of claim 64, wherein at least 50% by number of the gas bubbles of at least 25 $\mu\text{m}$  diameter are of no more than 120 $\mu\text{m}$  diameter and at least 95% of these gas bubbles are of no more than 250 $\mu\text{m}$ .

83. Cancelled.

84. Cancelled.

85. Cancelled.

86. Cancelled.